

### **REMARKS**

This Preliminary Amendment, filed in conjunction with a Request for Continued Examination ("RCE"), represents a full and timely response to the Final Office Action mailed June 16, 2006. The filing of this RCE and Amendment is permissible under 37 C.F.R. § 1.114. *See* M.P.E.P. § 706.07(h). The present Amendment amends claims 2 and 3 and adds new claims 19-24. Support for these amendments can be found variously throughout the specification, including, for example, original claims 2 and 3, on page 8, lines 6-17, and in Figure 1. No new matter has been added.

Accordingly, claims 2, 3, 5, 6, 14, 15, and 17-24 are presently pending in the application, each of which is believed to be in immediate condition for allowance. Reexamination and reconsideration in light of the present Amendment and the following remarks are respectfully requested.

#### **Declaration under 35 U.S.C. § 1.132**

A Declaration under 35 U.S.C. § 1.132 ("132 Declaration") is submitted concurrently with this Response. The 132 Declaration contains experimental results demonstrating unexpected and superior results exhibited by the presently claimed invention in comparison with the prior art cited by the Examiner in the Office Action.

#### **New Claims**

Support for new claims 19-24 can be found variously throughout the specification, including, for example, page 8, lines 6-17 and Figure 1.

New claims 19-22 recite, *inter alia*, a porous layer formed on a substrate which is a porous sintered metal layer. Claims 19-22 depend from claims 14, 15, 17, and 18, which claim a sliding composition being coated on the porous layer by impregnation.

The primary reference, Kato, discloses a compressor piston having a coated layer provided on the outer perimeter side surface of the piston. In order to provide sufficient strength to the piston, Kato uses an iron foundry product to form the piston (*see paragraph [0030] of Kato*). The coating material is coated on the outer perimeter side surface of the iron foundry product to form a coat layer (*see paragraph [0034] of Kato*).

Accordingly, it is apparent that a person skilled in the art would use materials such as iron molded at a foundry in order to maintain piston strength. However, based on Kato, and from the viewpoint of material strength, one skilled in the art would not be led to coat a sliding composition on a porous sintered metal layer by impregnation.

Furthermore, a person skilled in the art would not be led to form a bearing by processing a sliding member into a semi-cylinder or a cylinder, as specified in new claims 23 and 24.

Since each of these new claims is clearly distinguishable from the applied art of record, allowance of the same is courteously solicited.

#### **Claim Rejections- 35 U.S.C. § 112**

In the Action, claims 2, 3, 5, 6, 14, 15, 17, and 18 were rejected under 35 U.S.C. § 112, first paragraph, for alleged failure to comply with the written description requirement. Applicant respectfully traverses this rejection. However, in order to expedite prosecution, claims 2 and 3 have been amended in accordance with the examiner's suggestions. Withdrawal of this rejection is therefore courteously solicited.

#### **Claim Rejections- 35 U.S.C. § 103**

In the Action, claims 1 and 5 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Publication No. EP 1 031 726 to Kato et al. ("Kato") in view of U.S. Patent No. 5,780,396 to Tanaka et al. ("Tanaka"). Additionally, claims 3, 6, 14, 15, 17, and 18 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kato in view of Tanaka and further in view of Publication No. GB 2 258 866 to Niwa et al. ("Niwa"). These rejections are respectfully traversed for at least the following reasons.

#### **Claims 1 and 5**

Claim 1 was previously canceled in the Amendment of April 3, 2006.

Claims 2 recites, *inter alia*, a sliding member obtained by coating a substrate with a sliding composition comprising 50 to 80 vol% of a thermosetting resin, 10 to 40 vol% of a polytetrafluoroethylene ("PTFE") having a molecular weight of 3,000,000 or more and **an average particle size of 300 to 600  $\mu$ m** and 1 to 20 vol% of an alkaline earth metal salt.

As conceded in the Office Action, Kato does not teach a particular preference for particle size. However, Kato does disclose an Example which has a mean PTFE particle size of only 4

$\mu\text{m}$  in diameter, which is two orders of magnitude smaller than the average particle size recited in claim 2 (see paragraph [0044] of Kato). The additional prior art references cited in the Office Action also fail to disclose, teach, or even suggest PTFE having an average particle size of 200 to 600  $\mu\text{m}$ .

As described in the Present Specification, when the average PTFE particle size is as large as 300 to 600  $\mu\text{m}$ , the PTFE particles are made into fiber during mixing with a thermosetting resin and the like to have a large specific surface area (see page 13, line 20 to page 14, line 2 of the Present Specification). Therefore, the PTFE particles are distributed widely at a high density in the surface of the sliding composition, so that the sliding composition has chemical resistance, heat resistance, and excellent frictional properties owing to the excellent self-lubricating properties of the PTFE particles (see Table 1 of the Present Specification).

The 132 Declaration included with this Amendment shows the unexpected and superior results obtained by example compositions having an average PTFE particle size in the range of 300 to 600  $\mu\text{m}$ . The 132 Declaration makes clear that a composition having an average PTFE particle size of 470  $\mu\text{m}$  demonstrates superior and unexpected results in terms of depth of wear, which is significantly less than the depth of wear exhibited by a composition having an average PTFE particle size of 2  $\mu\text{m}$  (see Table I of the 132 Declaration).

Accordingly, since the sliding member and compounds disclosed in claim 2 exhibit unexpected and superior results in comparison with the compounds disclosed by Kohn, withdrawal of this rejection is respectfully requested. See, e.g., *In re Soni*, 54 F.3d 746, 34 USPQ2d 1684 (Fed. Cir. 1995) (“[W]hen an applicant demonstrates substantially improved results... and states that the results were unexpected, this should suffice to establish unexpected results in the absence of evidence to the contrary”); *Id.* (“that which would have been surprising to a person of ordinary skill in a particular art would not have been obvious.”).

Moreover, aside from the novel limitations recited therein, claim 5, being dependent either directly or indirectly upon allowable base claim 2, is also allowable for at least the reasons set forth above. Withdrawal of the rejection of this claim is therefore courteously solicited.

Claims 3, 6, 14, 15, 17, and 18

Based on the foregoing discussion concerning claim 2, Applicants further submit that with respect to independent claim 3, the Office Action has also not established a *prima facie* case for obviousness. Thus, Applicants respectfully request withdrawal of the rejection of claim 3 under 35 U.S.C. §103, and allowance of these claims.

Moreover, aside from the novel limitations recited therein, claim 3, 6, 14, 15, 17, and 18, being dependent either directly or indirectly upon allowable base claims 2 and 3, is also allowable for at least the reasons set forth above. Withdrawal of the rejection of this claim is therefore courteously solicited.

Additionally, according to Federal Circuit precedent, the burden of establishing a *prima facie* case of obviousness under 35 U.S.C. § 103 rests squarely on the shoulders of the Examiner. *In re Rinehart*, 531 F.2d 1048, 1052 (C.C.P.A. 1976); *accord*. MPEP 2142. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *See, e.g., Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) (“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references”); *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987) (“When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references”; *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (“Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination”); *accord*. MPEP 2143.

The secondary references used in this rejection, i.e. Tanaka and Niwa, both relate to sliding materials having specific compositions. Accordingly, Kato differs from Tanaka and Niwa in terms of the field of utilization and the required properties. Accordingly, one skilled in the art would not be motivated to combine the teachings of either Tanaka or Niwa with the teachings of

Kato, and the combination of the references constitutes mere hindsight reconstruction.

Withdrawal of this rejection is therefore courteously solicited.

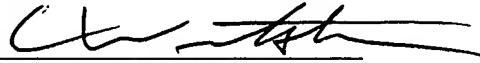
**CONCLUSION**

For at least the foregoing reasons, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to pass this application to issue. If the examiner has any comments or suggestions that could place this application in even better form, the examiner is invited to telephone the undersigned attorney at the below-listed number.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. ASA-0014 from which the undersigned is authorized to draw.

Dated: October 16, 2006

Respectfully submitted,

By 

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